

Farm Machinery and Equipment Manufacturing: 2002

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2002 Economic Census

Manufacturing

Industry Series



U S C E N S U S B U R E A U

Helping You Make Informed Decisions

U.S. Department of Commerce
Economics and Statistics Administration
U.S. CENSUS BUREAU



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-- Not applicable for this report.

Table 1. Historical Statistics for the Industry: 2002 and Earlier Years

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry and year ¹	Com- panies ²	All estab- lish- ments ³	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expendi- tures (\$1,000)	
			Number ⁴	Payroll (\$1,000)	Number ⁴	Hours (1,000)	Wages (\$1,000)					
333111, Farm machinery and equipment manufacturing	2002...	1 141	1 214	53 817	2 087 886	37 591	73 494	1 264 176	6 968 236	7 691 129	14 692 845	'343 094
	2001...	N	N	57 690	2 149 188	41 089	79 627	1 323 167	6 378 281	7 647 984	14 134 260	332 230
	2000...	N	N	61 735	2 190 165	44 316	84 063	1 350 791	5 865 011	7 722 700	13 501 468	348 593
	1999...	N	N	59 121	2 093 769	42 283	76 503	1 288 780	5 164 796	6 445 669	11 771 572	332 334
	1998...	N	N	66 312	2 385 716	47 790	95 761	1 542 994	8 080 416	8 508 568	16 527 140	439 579
	1997...	1 264	1 339	66 370	2 370 599	47 885	95 652	1 550 603	7 624 789	8 468 947	15 995 219	508 933

¹Statistics presented for years ending in 2 and 7 are census data. Interim census years are derived in a representative sample of manufacturing establishments canvassed in the Annual Survey of Manufactures (ASM).

²For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

³Includes establishments with payroll at any time during the year.

⁴Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 2. Industry Statistics for Selected States: 2002

[States that are a disclosure or with less than 100 employees are not shown. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographical definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

Industry and geographic area	E ¹	All establishments ²		All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
		Total	With 20 employees or more	Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333111, Farm machinery and equipment manufacturing												
United States	—	1 214	384	53 817	2 087 886	37 591	73 494	1 264 176	6 968 236	7 691 129	14 692 845	'343 094
California	4	104	25	1 729	59 782	1 130	2 233	34 244	132 656	150 404	284 310	'6 316
Colorado	1	17	5	442	15 356	342	715	10 427	37 568	41 036	79 195	'4 618
Florida	6	29	3	284	9 174	190	349	5 224	19 258	20 346	39 566	'737
Idaho	1	28	7	573	18 994	399	884	11 136	30 475	37 959	67 931	'881
Illinois	—	52	23	6 644	298 446	4 751	8 778	190 439	1 234 927	986 347	2 246 121	'34 144
Indiana	—	29	12	1 080	43 900	658	1 258	20 567	150 581	199 262	359 911	'7 409
Iowa	—	90	49	8 560	400 220	6 105	12 846	255 158	2 038 681	1 645 188	3 685 718	'93 051
Kansas	—	69	29	4 502	164 139	3 030	6 040	90 669	353 492	390 012	744 628	'18 256
Minnesota	—	76	27	3 260	99 783	2 217	4 322	60 815	430 420	458 946	896 522	'15 228
Missouri	1	25	8	422	14 138	280	525	6 477	26 283	39 038	63 882	'1 552
Nebraska	1	78	25	5 443	219 754	3 614	7 671	119 384	521 183	693 667	1 240 668	'68 856
New York	—	14	3	565	18 990	353	585	7 410	57 429	43 682	102 112	'909
Ohio	2	30	9	802	30 491	608	1 347	20 992	86 355	72 742	150 060	'3 037
Oregon	1	28	11	563	18 295	387	763	11 450	44 726	38 577	83 870	'2 066
Pennsylvania	—	40	7	1 098	52 310	898	1 810	41 177	127 612	128 153	262 479	'5 004
South Dakota	4	23	7	504	13 566	329	683	8 905	33 364	44 083	79 424	'1 409
Tennessee	3	18	6	481	13 321	340	666	7 869	35 903	33 498	68 837	'2 479
Texas	1	67	14	1 327	40 689	1 011	1 944	25 823	92 021	71 491	161 195	'5 794
Washington	2	31	4	464	19 357	296	633	10 546	37 233	38 273	76 079	'1 946
Wisconsin	—	52	24	4 394	162 545	3 198	4 034	101 430	278 669	672 936	946 635	'23 529

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1–10 to 19 percent; 2–20 to 29 percent; 3–30 to 39 percent; 4–40 to 49 percent; 5–50 to 59 percent; 6–60 to 69 percent; 7–70 to 79 percent; 8–80 to 89 percent; 9–90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 3. Detailed Statistics by Industry: 2002

[Data based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). For information on confidentiality protection, sampling error, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Item	Value
333111, Farm machinery and equipment manufacturing	
Companies ¹	number.. 1 141
All establishments ²	number.. 1 214
Establishments with 1 to 19 employees.....	number.. 830
Establishments with 20 to 99 employees.....	number.. 281
Establishments with 100 employees or more.....	number.. 103
All employees ³	number.. 53 817
Total compensation.....	\$1,000.. 2 746 715
Annual payroll.....	\$1,000.. 2 087 886
Total fringe benefits.....	\$1,000.. 658 829
Production workers, average for year.....	number.. 37 591
Production workers on March 12.....	number.. 38 872
Production workers on May 12.....	number.. 38 575
Production workers on August 12.....	number.. 35 992
Production workers on November 12.....	number.. 36 857
Production worker hours.....	1,000.. 73 494
Production worker wages.....	\$1,000.. 1 264 176
Total cost of materials.....	\$1,000.. 7 691 129
Materials, parts, containers, packaging, etc., used.....	\$1,000.. 6 912 379
Resales.....	\$1,000.. 594 287
Purchased fuels.....	\$1,000.. 38 717
Purchased electricity.....	\$1,000.. 54 622
Contract work.....	\$1,000.. 91 124
Quantity of electricity purchased for heat and power.....	1,000 kWh.. 1 071 140
Quantity of electricity generated less sold for heat and power.....	1,000 kWh.. 14 455
Total value of shipments.....	\$1,000.. 14 692 845
Primary products value of shipments.....	\$1,000.. 13 024 077
Secondary products value of shipments.....	\$1,000.. 684 331
Total miscellaneous receipts.....	\$1,000.. 984 437
Value of resales.....	\$1,000.. 901 916
Contract receipts.....	\$1,000.. D
Other miscellaneous receipts.....	\$1,000.. D
Primary products specialization ratio.....	percent.. 95
Value of primary products shipments made in all industries.....	\$1,000.. 13 542 250
Value of primary products shipments made in this industry.....	\$1,000.. 13 024 077
Value of primary products shipments made in other industries.....	\$1,000.. 518 173
Coverage ratio.....	percent.. 96
Value added.....	\$1,000.. 6 968 236
Total inventories, beginning of year.....	\$1,000.. 2 096 959
Finished goods inventories.....	\$1,000.. 915 319
Work-in-process inventories.....	\$1,000.. 402 791
Materials and supplies inventories.....	\$1,000.. 778 849
Total inventories, end of year.....	\$1,000.. 2 060 058
Finished goods inventories.....	\$1,000.. 908 673
Work-in-process inventories.....	\$1,000.. 375 957
Materials and supplies inventories.....	\$1,000.. 775 780
Gross value of depreciable assets (acquisition costs) at beginning of year.....	\$1,000.. '4 753 209
Total capital expenditures (new and used).....	\$1,000.. '343 094
Buildings and other structures (new and used).....	\$1,000.. '49 834
Machinery and equipment (new and used).....	\$1,000.. '293 260
Automobiles, trucks, etc., for highway use.....	\$1,000.. '13 087
Computers and peripheral data processing equipment.....	\$1,000.. '30 105
All other expenditures for machinery and equipment.....	\$1,000.. '250 068
Total retirements.....	\$1,000.. '197 261
Gross value of depreciable assets at end of year.....	\$1,000.. '4 899 042
Depreciation charges during year.....	\$1,000.. '269 051
Total rental payments.....	\$1,000.. 92 044
Buildings and other structures.....	\$1,000.. 51 692
Machinery and equipment.....	\$1,000.. 40 352
Total other expenses ⁴	\$1,000.. 787 386
Response coverage ratio ⁵	percent.. 82
Repair and maintenance services of buildings and/or machinery ⁴	\$1,000.. 116 253
Communications services ⁴	\$1,000.. 19 545
Legal services ⁴	\$1,000.. 12 129
Accounting, auditing, and bookkeeping services ⁴	\$1,000.. 14 709
Advertising and promotional services ⁴	\$1,000.. 57 853
Expensed computer hardware and supplies and purchased computer services ⁴	\$1,000.. 24 760
Refuse removal (including hazardous waste) services ⁴	\$1,000.. 11 908
Management consulting and administrative services ⁴	\$1,000.. 14 797
Taxes and license fees ⁴	\$1,000.. 20 001
All other expenses ⁴	\$1,000.. 495 431

¹For the census, a company is defined as a business organization consisting of one establishment or more under common ownership or control.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Based on Annual Survey of Manufactures (ASM) sample data.

⁵A response coverage ratio is derived for this item by calculating the ratio of the weighted employment (establishment data multiplied by sample weight) for those Annual Survey of Manufactures (ASM) establishments that reported to the weighted total employment for all ASM establishments classified in this industry.

Note 1: The amounts shown for other expenses reflect only those services that establishments purchase from other companies.

Note 2: The data in this table are based on the 2002 Economic Census and the 2002 Annual Survey of Manufactures (ASM). To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain sampling errors and nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 4. Industry Statistics by Employment Size: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Employment size class	E ¹	All establishments ²	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ³	Payroll (\$1,000)	Number ³	Hours (1,000)	Wages (\$1,000)				
333111, Farm machinery and equipment manufacturing											
All establishments	—	1 214	53 817	2 087 886	37 591	73 494	1 264 176	6 968 236	7 691 129	14 692 845	'343 094
Establishments with—											
1 to 4 employees	9	467	952	30 818	663	1 143	19 135	64 038	73 712	137 612	'2 642
5 to 9 employees	8	178	1 183	41 625	780	1 575	25 555	91 519	114 943	207 175	'4 190
10 to 19 employees	5	185	2 526	83 371	1 734	3 284	50 120	200 369	204 201	401 372	'9 635
20 to 49 employees	1	189	6 037	197 301	4 179	8 260	112 764	424 619	432 706	866 130	'26 645
50 to 99 employees	1	92	6 309	212 021	4 392	8 816	124 819	461 721	508 528	975 697	'27 073
100 to 249 employees	1	64	10 162	360 722	7 123	14 607	204 318	896 592	1 176 878	2 047 037	'47 917
250 to 499 employees	—	22	8 451	326 544	5 445	10 866	176 251	1 235 364	1 706 781	3 000 173	'73 665
500 to 999 employees	—	11	7 716	331 633	5 857	11 507	237 531	1 320 479	1 454 703	2 778 907	'42 668
1,000 to 2,499 employees	—	5	i	D	D	D	D	D	D	D	D
2,500 employees or more	—	1	h	D	D	D	D	D	D	D	D
Administrative records ⁴	9	648	2 800	96 751	1 909	3 692	60 706	204 705	251 277	453 292	'8 934

¹Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. This technique was also used for a small number of other establishments whose reports were not received at the time data were tabulated. The following symbols are shown where estimated data account for 10 percent or more of the figures shown: 1—10 to 19 percent; 2—20 to 29 percent; 3—30 to 39 percent; 4—40 to 49 percent; 5—50 to 59 percent; 6—60 to 69 percent; 7—70 to 79 percent; 8—80 to 89 percent; 9—90 percent or more.

²Includes establishments with payroll at any time during the year.

³Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

⁴Some payroll and sales data for small single-establishment companies with up to 20 employees (cutoff varied by industry) were obtained from administrative records of other government agencies rather than from census report forms. These data were then used in conjunction with industry averages to estimate statistics for these small establishments. Data are also included in respective size classes shown.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 5. Industry Statistics by Primary Product Class Specialization: 2002

[Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note at end of table. For meaning of abbreviations and symbols, see introductory text]

Industry or product class code	Industry or primary product class	All establishments ¹	All employees		Production workers			Value added (\$1,000)	Total cost of materials (\$1,000)	Total value of shipments (\$1,000)	Total capital expenditures (\$1,000)
			Number ²	Payroll (\$1,000)	Number ²	Hours (1,000)	Wages (\$1,000)				
333111	Farm machinery and equipment manufacturing	1 214	53 817	2 087 886	37 591	73 494	1 264 176	6 968 236	7 691 129	14 692 845	'343 094
3331111	Farm-type (power take-off hp) wheel tractors (2- and 4-wheel drive) (sold with or without attachments)	19	5 370	249 734	3 801	7 998	159 285	1 845 987	2 297 016	4 172 985	'60 694
3331114	Farm dairy equipment, sprayers and dusters (except aerial types), farm blowers, and attachments	33	3 757	126 750	2 411	4 885	70 182	330 554	439 250	778 857	'16 468
3331117	Planting, seeding, and fertilizing machinery and attachments, excluding turf machinery	49	3 117	117 954	2 132	4 379	66 293	384 387	283 913	676 355	'22 545
3331119	Harvesting machinery (except hay and straw) and attachments	43	5 861	290 722	4 111	7 825	184 481	1 258 564	947 290	2 206 405	'31 815
333111A	Haying machinery and attachments	17	4 721	223 566	3 370	6 814	152 493	693 394	688 090	1 399 572	'53 748
333111C	Parts for farm machinery, for sale separately	55	4 317	149 836	3 234	6 388	94 861	399 164	322 067	721 458	'23 564
333111E	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators	28	1 964	67 633	1 312	2 671	37 553	142 459	134 026	277 122	'5 563
333111G	All other farm machinery and equipment (excluding parts), including attachments	159	12 825	462 948	8 866	18 384	255 181	983 079	1 276 675	2 221 840	'84 060
333111J	Commercial turf and grounds care equipment, including parts and attachments	50	7 041	235 215	5 045	7 889	143 260	610 578	922 776	1 536 395	'28 901

¹Includes establishments with payroll at any time during the year.

²Number of employees figures represent average number of production workers for pay period that includes the 12th of March, May, August, and November plus other employees for payroll period that includes the 12th of March.

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6a. **Products Statistics: 2002 and 1997**

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333111	Farm machinery and equipment manufacturing	2002.. N 1997.. N	X X	X X	13 542 250 15 006 901
3331111	Farm-type (power take-off hp) wheel tractors (2- and 4-wheel drive) (sold with or without attachments)	2002.. N 1997.. N	X X	X X	3 667 469 3 856 907
33311111	Farm-type (power take-off hp) wheel tractors (2- and 4-wheel drive) (sold with or without attachments)	2002.. N 1997.. N	X X	X X	3 667 469 3 856 907
3331111100	Farm-type (power take-off hp) wheel tractors (2- and 4-wheel drive) (sold with or without attachments) ¹	2002.. 22 1997.. 20	X X	X X	3 667 469 3 856 907
3331114	Farm dairy equipment, sprayers and dusters (except aerial types), farm blowers, and attachments	2002.. N 1997.. N	X X	X X	616 901 N
33311141	Farm dairy equipment, sprayers and dusters (except aerial types), farm blowers, and attachments	2002.. N 1997.. N	X X	X X	616 901 N
3331114100	Farm dairy equipment, sprayers and dusters (except aerial types), farm blowers, and attachments ¹	2002.. 48 1997.. N	X X	X X	616 901 N
3331117	Planting, seeding, and fertilizing machinery and attachments, excluding turf machinery	2002.. N 1997.. N	X X	X X	978 648 1 080 018
33311171	Planting, seeding, and fertilizing machinery and attachments, excluding turf machinery	2002.. N 1997.. N	X X	X X	978 648 1 080 018
3331117100	Planting, seeding, and fertilizing machinery and attachments, excluding turf machinery ¹	2002.. 91 1997.. 96	X X	X X	978 648 1 080 018
3331119	Harvesting machinery (except hay and straw) and attachments	2002.. N 1997.. N	X X	X X	1 742 071 2 970 346
33311191	Harvesting machinery (except hay and straw) and attachments	2002.. N 1997.. N	X X	X X	1 742 071 2 970 346
3331119100	Harvesting machinery (except hay and straw) and attachments ¹	2002.. 62 1997.. 107	X X	X X	1 742 071 2 970 346
333111A	Haying machinery and attachments	2002.. N 1997.. N	X X	X X	945 642 664 378
333111A1	Haying machinery and attachments	2002.. N 1997.. N	X X	X X	945 642 664 378
333111A100	Haying machinery and attachments ¹	2002.. 29 1997.. 53	X X	X X	945 642 664 378
333111C	Parts for farm machinery, for sale separately	2002.. N 1997.. N	X X	X X	1 353 872 1 425 475
333111C1	Parts for farm-type wheel tractors (except operator cabs), for sale separately	2002.. N 1997.. N	X X	X X	599 477 584 948
333111C110	Parts for farm-type wheel tractors (except operator cabs), for sale separately ¹	2002.. 39 1997.. 55	X X	X X	599 477 584 948
333111C2	Other parts for farm machinery (except for wheel tractors), including operator cabs, for sale separately	2002.. N 1997.. N	X X	X X	720 417 801 417
333111C220	Other parts for farm machinery (except for wheel tractors), including operator cabs, for sale separately ¹	2002.. 140 1997.. 190	X X	X X	720 417 801 417
333111CY	Parts for farm machinery, for sale separately, nsk	2002.. N 1997.. N	X X	X X	33 978 39 110
333111CYWV	Parts for farm machinery, for sale separately, nsk	2002.. N 1997.. N	X X	X X	33 978 39 110
333111E	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators and weeders, and attachments	2002.. N 1997.. N	X X	X X	343 718 608 954
333111E1	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators and weeders, and attachments	2002.. N 1997.. N	X X	X X	343 718 608 954
333111E100	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators and weeders, and attachments ¹	2002.. 51 1997.. 107	X X	X X	343 718 608 954
333111G	All other farm machinery and equipment (excluding parts), including attachments	2002.. N 1997.. N	X X	X X	1 802 653 1 836 550
333111G1	All other farm machinery and equipment (excluding parts), including attachments	2002.. N 1997.. N	X X	X X	1 802 653 1 836 550
333111G100	All other farm machinery and equipment (excluding parts), including attachments ¹	2002.. 197 1997.. 238	X X	X X	1 802 653 1 836 550
333111J	Commercial turf and grounds care equipment, including parts and attachments	2002.. N 1997.. N	X X	X X	1 537 647 1 340 221
333111J1	Commercial turf and grounds care equipment, including parts and attachments	2002.. N 1997.. N	X X	X X	1 537 647 1 340 221
333111J100	Commercial turf and grounds care equipment, including parts and attachments ¹	2002.. 73 1997.. 77	X X	X X	1 537 647 1 340 221

See footnotes at end of table.

Table 6a. Products Statistics: 2002 and 1997—Con.

[Includes quantity and value of products of this industry produced by (1) establishments classified in this industry (primary) and (2) establishments classified in other industries (secondary). Transfers of products of this industry from one establishment of a company to another establishment of the same company (interplant transfers) are also included. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Product code	Product	Number of companies with shipments of \$100,000 or more	Quantity of production for all purposes	Product shipments	
				Quantity	Value (\$1,000)
333111	Farm machinery and equipment manufacturing—Con.				
333111W	Farm machinery and equipment manufacturing, nsk, total	2002.. N	X	X	553 629
		1997.. N	X	X	478 747
333111WY	Farm machinery and equipment manufacturing, nsk, total	2002.. N	X	X	553 629
		1997.. N	X	X	478 747
333111WYWW	Farm machinery and equipment manufacturing, nsk, for nonadministrative-record establishments	2002.. N	X	X	160 445
		1997.. N	X	X	263 367
333111WYWY	Farm machinery and equipment manufacturing, nsk, for administrative-record establishments	2002.. N	X	X	393 184
		1997.. N	X	X	215 380

¹For additional detail, see Current Industrial Report MA333A, Farm Machinery and Garden Equipment.

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p–10 to 19 percent estimated; q–20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

Note 2: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
3331111	Farm-type (power take-off hp) wheel tractors (2- and 4-wheel drive) (sold with or without attachments)	
	United States..... 2002..	3 667 469
	..... 1997..	3 856 907
	California..... 2002..	15 786
	..... 1997..	N
3331114	Farm dairy equipment, sprayers and dusters (except aerial types), farm blowers, and attachments	
	United States..... 2002..	616 901
	..... 1997..	N
	Iowa..... 2002..	41 868
	..... 1997..	N
	Minnesota..... 2002..	281 404
	..... 1997..	N
	Texas..... 2002..	7 912
	..... 1997..	N
	Wisconsin..... 2002..	36 542
	..... 1997..	N
3331117	Planting, seeding, and fertilizing machinery and attachments, excluding turf machinery	
	United States..... 2002..	978 648
	..... 1997..	1 080 018
	Iowa..... 2002..	183 978
	..... 1997..	221 726
	Kansas..... 2002..	79 065
	..... 1997..	N
	Minnesota..... 2002..	74 738
	..... 1997..	62 607
	Nebraska..... 2002..	14 094
	..... 1997..	16 681
	Texas..... 2002..	4 818
	..... 1997..	N
	Wisconsin..... 2002..	36 636
	..... 1997..	27 021
3331119	Harvesting machinery (except hay and straw) and attachments	
	United States..... 2002..	1 742 071
	..... 1997..	2 970 346
	California..... 2002..	27 811
	..... 1997..	31 197
	Idaho..... 2002..	13 789
	..... 1997..	12 405
	Nebraska..... 2002..	95 195
	..... 1997..	107 106
	Wisconsin..... 2002..	22 269
	..... 1997..	32 088
333111A	Haying machinery and attachments	
	United States..... 2002..	945 642
	..... 1997..	664 378
	Oregon..... 2002..	11 557
	..... 1997..	27 899
	Wisconsin..... 2002..	25 080
	..... 1997..	32 404
333111C	Parts for farm machinery, for sale separately	
	United States..... 2002..	1 353 872
	..... 1997..	1 425 475
	California..... 2002..	22 478
	..... 1997..	8 679
	Colorado..... 2002..	23 482
	..... 1997..	3 284
	Idaho..... 2002..	4 185
	..... 1997..	14 547
	Illinois..... 2002..	305 545
	..... 1997..	376 655
	Iowa..... 2002..	529 866
	..... 1997..	555 979
	Kansas..... 2002..	38 932
	..... 1997..	32 347
	Minnesota..... 2002..	22 987
	..... 1997..	53 993
	Missouri..... 2002..	17 612
	..... 1997..	11 244
	Nebraska..... 2002..	74 145
	..... 1997..	78 310
	Ohio..... 2002..	2 891
	..... 1997..	N
	Oregon..... 2002..	11 605
	..... 1997..	3 891
	Tennessee..... 2002..	4 569
	..... 1997..	N
	Wisconsin..... 2002..	97 422
	..... 1997..	62 959
333111E	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators and weeders, and attachments	
	United States..... 2002..	343 718
	..... 1997..	608 954
	California..... 2002..	11 019
	..... 1997..	14 372
	Illinois..... 2002..	84 978
	..... 1997..	92 641
	Kansas..... 2002..	53 071
	..... 1997..	71 469
	Minnesota..... 2002..	2 067
	..... 1997..	N
	Tennessee..... 2002..	5 045

See footnotes at end of table.

Table 6b. **Product Class Shipments for Selected States: 2002 and 1997—Con.**

[Product classes covered are those that are economically significant and whose production is geographically dispersed, provided dispersion is not approximated by data in Table 2. Also, product classes are not shown if they are miscellaneous or "not specified by kind" classes. Statistics for some states are withheld because they are either less than \$2 million in product class shipments or they disclose data for individual companies in 2002. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, explanation of terms, and geographic definitions, see note at end of table. For information on geographic areas followed by *, see Appendix D. For meaning of abbreviations and symbols, see introductory text]

NAICS product class code	Product class and geographic area	Value of product shipments (\$1,000)
333111E	Farm plows (including plowshares, primary tillage), harrows, rollers, pulverizers, and cultivators and weeders, and attachments—Con.	
	United States—Con.	
	Texas	1997.. 9 300
	.....	2002.. 3 869
	.....	1997.. 12 686
333111G	All other farm machinery and equipment (excluding parts), including attachments	
	United States	2002.. 1 802 653
	.....	1997.. 1 836 550
	California	2002.. 105 855
	.....	1997.. 39 445
	Colorado	2002.. 13 486
	.....	1997.. N
	Idaho	2002.. 27 837
	.....	1997.. N
	Illinois	2002.. 79 226
	.....	1997.. 180 252
	Indiana	2002.. 141 052
	.....	1997.. 176 071
	Iowa	2002.. 116 763
	.....	1997.. 158 705
	Kansas	2002.. 79 929
	.....	1997.. 104 938
	Minnesota	2002.. 44 955
	.....	1997.. 45 494
	Missouri	2002.. 20 004
	.....	1997.. 7 806
	Nebraska	2002.. 410 104
	.....	1997.. 427 389
	Ohio	2002.. 30 792
	.....	1997.. 17 056
	Oregon	2002.. 23 715
	.....	1997.. 18 921
	Pennsylvania	2002.. 58 312
	.....	1997.. 25 099
	South Dakota	2002.. 30 189
	.....	1997.. 13 022
	Texas	2002.. 65 649
	.....	1997.. 20 761
	Wisconsin	2002.. 101 747
	.....	1997.. 117 432
333111J	Commercial turf and grounds care equipment, including parts and attachments	
	United States	2002.. 1 537 647
	.....	1997.. 1 340 221
	Georgia	2002.. D
	.....	1997.. N
	Indiana	2002.. 85 480
	.....	1997.. 47 590
	Kansas	2002.. 179 654
	.....	1997.. 87 341
	Minnesota	2002.. 38 461
	.....	1997.. 57 984
	Nebraska	2002.. 284 005
	.....	1997.. 125 778
	Wisconsin	2002.. 421 082
	.....	1997.. 581 436

Note: The data in this table are based on the 2002 Economic Census. To maintain confidentiality, the Census Bureau suppresses data to protect the identity of any business or individual. The census results in this table contain nonsampling errors. Data users who create their own estimates using data from American FactFinder tables should cite the Census Bureau as the source of the original data only. For explanation of terms, see Appendix A. For full technical documentation, see Appendix C. For geographical definitions, see Appendix D.

Table 7. Materials Consumed by Kind: 2002 and 1997

[Includes quantity and cost of materials consumed or put into production by establishments classified only in this industry. Data based on the 2002 Economic Census. For information on confidentiality protection, nonsampling error, and explanation of terms, see note 2 at end of table. For meaning of abbreviations and symbols, see introductory text]

Material code	Material consumed	Quantity	Delivered cost (\$1,000)
333111	Farm machinery and equipment manufacturing		
00900001	Total materials .....2002..	X	6 912 379
	.....1997..	X	7 760 781
33399601	Fluid power pumps, motors, and hydrostatic transmissions (hydraulic and pneumatic) .....2002..	X	179 252
	.....1997..	X	412 901
33399501	Fluid power cylinders and rotary actuators (hydraulic and pneumatic) .....2002..	X	102 869
	.....1997..	X	128 953
33399901	Fluid power filters (hydraulic and pneumatic) .....2002..	X	26 290
	.....1997..	X	16 916
33291203	Fluid power hose and tube fittings and assemblies (hydraulic and pneumatic) .....2002..	X	85 250
	.....1997..	X	92 240
33291207	Fluid power valves (hydraulic and pneumatic) .....2002..	X	88 111
	.....1997..	X	134 915
33272203	Metal bolts, nuts, screws, washers, rivets, and other screw machine products .....2002..	X	153 185
	.....1997..	X	172 389
332000AC	Metal stampings .....2002..	X	225 032
	.....1997..	X	206 096
33200041	All other fabricated metal products (excluding forgings) .....2002..	X	228 120
	.....1997..	X	371 899
33211101	Iron and steel forgings .....2002..	X	63 758
	.....1997..	X	111 386
33211201	Nonferrous forgings .....2002..	X	1 034
	.....1997..	X	3 579
33151001	Iron and steel castings (rough and semifinished) .....2002..	X	254 141
	.....1997..	X	583 264
33152005	Aluminum and aluminum-base alloy castings (rough and semifinished) .....2002..	X	27 700
	.....1997..	X	50 190
33152003	Other nonferrous metal castings, rough and semifinished (including aluminum and aluminum-base alloy) .....2002..	X	3 474
	.....1997..	X	4 941
33120007	Steel bars, bar shapes, and plate (excluding castings, forgings, and fabricated metal products) .....2002..	X	190 035
	.....1997..	X	507 763
33120016	Steel sheet and strip (including tinplate) .....2002..	X	218 231
	.....1997..	X	N
33120019	Steel structural shapes and sheet piling (excluding castings, forgings, and fabricated metal products) .....2002..	X	35 374
	.....1997..	X	125 770
33120091	All other steel shapes and forms (excluding castings, forgings, fabricated metal products, bars, bar shapes, plate, sheet, strip, structural shapes, and sheet piling) .....2002..	X	365 364
	.....1997..	X	131 471
331000AJ	Nonferrous metal shapes and forms (excluding castings, forgings, and fabricated metal products) .....2002..	X	D
	.....1997..	X	18 882
331000AA	Metal powders .....2002..	X	D
	.....1997..	X	4 685
33361803	Diesel engines and parts specially designed for diesel engines .....2002..	X	325 589
	.....1997..	X	N
33631200	Gasoline engines and parts specially designed for gasoline engines .....2002..	X	139 780
	.....1997..	X	N
33632200	Engine electrical equipment (including spark plugs, magnetos, generators, starters, etc.) .....2002..	X	93 878
	.....1997..	X	164 887
33531201	Electric motors and generators .....2002..	X	33 617
	.....1997..	X	82 558
33299105	Ball bearings (mounted or unmounted) .....2002..	X	49 145
	.....1997..	X	76 395
33299103	Roller bearings (mounted or unmounted) .....2002..	X	29 356
	.....1997..	X	62 793
33361200	Mechanical speed changers, gears, and industrial high-speed drives .....2002..	X	73 477
	.....1997..	X	331 118
32621003	Pneumatic tires and inner tubes .....2002..	X	165 997
	.....1997..	X	N
33639909	Wheels, motor vehicle .....2002..	X	31 145
	.....1997..	X	N
33633000	Shocks, struts, and other suspension equipment and parts .....2002..	X	29 285
	.....1997..	X	N
33635003	Transmissions and parts .....2002..	X	267 057
	.....1997..	X	N
32622001	Rubber and plastics hose and belting .....2002..	X	76 695
	.....1997..	X	114 305
32610011	Fabricated plastics products (excluding gaskets) .....2002..	X	129 420
	.....1997..	X	133 451
32551002	Paints, varnishes, stains, lacquers, shellacs, japans, enamels, and allied product .....2002..	X	46 701
	.....1997..	X	N
33311100	Cabs purchased for installation on farm machinery .....2002..	X	86 890
	.....1997..	X	24 217
00970099	All other materials and components, parts, containers, and supplies .....2002..	X	2 528 973
	.....1997..	X	3 007 504
00971000	Materials, ingredients, containers, and supplies, nsk .....2002..	X	547 386
	.....1997..	X	685 313

Note 1: For some establishments, data have been estimated from central unit values that are based on quantity-value relationships of reported data. The following symbols are used when percentage of each quantity figure estimated in this manner equals or exceeds 10 percent of published figure: p–10 to 19 percent estimated; q–20 to 29 percent estimated. If 30 percent or more is estimated, figure is replaced by S.

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